

UNDERGROUND OPERATION ENVIRONMENTAL INFORMATION

It cannot be emphasized enough that the Underground Concessions Area is within a natural area open to natural influences including animal use and cave microclimate conditions. Being in a natural area, it is important that the operations impact these natural processes as little as possible.

LIGHTS OR NOISE– From approximately April 1 to November 1, at least two different species of bats (Fringed Myotis and Cave Myotis) utilize the remote areas of Left-Hand Tunnel to the east of the Underground Concessions Area. These bats access Left-Hand Tunnel by flying directly through the Underground Concessions Area. While the Cave Myotis roost in a number of areas in Left-Hand Tunnel in small numbers, the Fringed Myotis bats roost in generally one location and are mostly pregnant females and usually number around 150 individuals. The natural condition for this area is total darkness. It has been well documented that lights and noise will disrupt these populations and interfere with the bats ability to leave the cave for their nightly forage. Research has shown that these bats will not fly through areas where the lights are still on or where significant noise is being made. This is especially hard on the pregnant females who expend energy leaving their roost only to get to an area where the lights are still on. They then fly back to their roost and try to leave again later.

RELEASING VOLATIZED ORGANICS – The use of microwave ovens and other food sources release volatized organic material into the local cave environment. Though the Underground Concessions Area is open to natural influences, the area is confined by cave walls, floors, and ceilings. Volatized organic material settles on these walls, floors, and ceilings where they are consumed by native and introduced microbial systems. This process has disrupted natural systems in the local area and has resulted in thick black, red, and other colors of deposits on the ceilings and walls around the area. In addition, this affected the food chain and has led to a significant change in native cave invertebrate populations.

ANIMAL ATTRACTANTS – Both raccoons and ringtails can naturally be found deep into caves. However, both these mammals are attracted into the deeper portions of Carlsbad Cavern by the lure of food, whether they follow dropped candy wrappers or the smell of volatized organic material being released from microwaves. Keeping areas clean from food spills, food wrappers, water drips, and minimizing or eliminating food smells is imperative. Between 1975 and 1985 over 300 raccoons were trapped and removed from this area. More recently, ringtails have occasionally come into this area and stayed for numerous days. Some will show up and leave after a day, but the others were attracted to the food smells and had to be trapped and removed.

